

SIMALJAK, J.; MILLEROVA, A.; JABLONSKY, I.; IASKOVA, O.; BUKICOVA, H.; BUZAS. M.

Effect of several common light sources on color perception. Cesk. ofth.
14 no.6:420-424 Dec 58..

1. Ustav pre lekarsku fyziku UK Bratislava, prednosta prof. MUDr. RNDr.
Z. Krizan.

(COLOR VISION
eff. of various light sources on color perception (Cz))

(ILLUMINATION
same)

Bukal, J.

Bukal, J. Tasks of the heavy machinery industry in technical development
for 1957. p. 1.

Vol. 7, no. 1, Jan. 1957

STROJIRENSTVI

TECHNOLOGY

Czechoslovakia

So: East European Accessions, Vol. 6, May 1957
No. 5

BUKALA, M.

4

Bukala, M., Majewski, J., Semkowicz, A. Automation of Laboratory Fractional Distillation Process. Part V. Electronic device for control of distillation speed in laboratory columns.

„Automatyzacja procesu destylacji frakcjonowanej w laboratorium. V. Elektronowy regulator szybkości destylacji dla kolumn laboratoryjnych”. Przemysł Chemiczny, No. 5, 1953, pp. 224-228, 5 figs.

An electronic device has been designed for automatic control of distillation speed in laboratory columns. The device is based on the dielectric properties of distilled liquids. An electric condenser of special design placed in the distillation head is used as indicator. The device is adapted to control the process of fractional distillation of dielectric liquids, especially terpenes. The operation of the device is independent of the speed of distillation and its accuracy is ca 5%.

BUKALA, M.

Bukala M., Majewski J., Rodziński W. Automatisation of Laboratory Fractional Distillation Process. Part VI. Distillation head with electronic regulation of distillation speed and of relation of condensing.

"Automatyzacja procesu destylacji frakcjonowanej w laboratorium. VI. Głowica destylacyjna z elektronową regulacją szybkości destylacji oraz stosunku oruślenia". Przemysł Chemiczny. No. 8, 1953, pp. 263—267, 9 figs.

A distillation head has been designed, provided with an indicator in the form of an electric cylinder condenser on an electronic basis, for fractional laboratory distillation for regulating the speed of distillation. The speed range is from 60 to above 300 cm³/h. By the choice of suitable exchangeable parts of the head, the upper limit can be moved to above 2000 cm³/h. The head is also provided with a device for regulating the relation of condensing, by means of a solenoid piloted by an electronic cyclical regulator. The device makes it possible to maintain a constant relation of condensing within the range of 0.2 — 53 with high accuracy.

MF 8/31

Bukala, V.M.

4

Automatization of laboratory fractional-distillation process.
V. M. Bukala, J. Majewski, and A. Senkowicz. *Przemysl Chemiczny*, 1953 (English summary); E. Collins and Lantz, C.A., 41, 6307.—An electronic device for automatic control of distn. speed in lab. columns has been designed; it is based on dielectric properties of distd. liquids. An elec. condenser placed in the distn. head has been applied as an indicator. The device is adapted to control the process of fractional distn. of dielectric liquids, especially terpenes. The operation of the device is independent of the speed of distn., and its exactness is approx. 5%. VI. M. Bukala, J. Majewski, and W. Rodziński. *Ibid*, 253-7.—A distn. head for lab. fractional distn. with an indicator in the form of an elec. cylindric condenser regulating electronically the speed of distn. has been designed. The range of speed is 60 to above 300 cc./hr.; however, its upper limit can be moved to above 2000 cc./hr. by interchanging suitable parts of the head. The head is provided with a solenoid piloted by an electronic regulator of cycles to regulate the condensation. Gen. A. Werny ...

BUKALA, M.

2002

547.598.5 : 541.123.2

Bukala M., Majewski J., Rodziński W. The State of Phase-Equilibrium of the Liquid-Vapour System for Real Two-Component Mixtures. Terpenes: I α -pinene — β -pinene.

"Stan równowagi międzyfazowej układu ciecz-para dla rzeczywistych mieszanin dwuskładnikowych. Węglowodory terpionowe: I α -pinen — β -pinen". Przemysł Chemiczny, No. 10, 1953, pp.513—520, 5 figs., 3 tabs.

Determination, by using a two-tray instrument, of the curves of equilibrium and of composition, together with the coefficients of activity for α - and β -pinene mixtures, under pressures of 15, 30 and 55 mm Hg. The results of experiments were, by using the equations of van Laar, Margules and Redlich-Kister, compared with the thermodynamic relations. A method is described of defining the equilibrium curve for an imperfect mixture of a two-component liquid, taking advantage of data on the pressure of saturated vapours from pure components and of parameters (obtained on an experimental basis for one freely chosen composition of the mixture) determining the state of equilibrium.

Bukala, M.

2969

541 : 183.2.034.6

Bukala, M., Majewski, J., Rozdzielski, W. An Instrument for Determining
by the Static Method the Pressure of Saturated Vapour.

"Aparat do oznaczania prędkości par nasyconych metodą statyczna".
Przemysł Chemiczny, No. 11, 1953, pp. 564-568, 8 figs., 2 tabs.

A description of a new type of Instrument for measuring the
pressure of saturated vapour by the static method within a pressure
range up to about 1200 mm. Hg. Approx. 5 cc of liquid is sufficient
for the measurements. A manometer with optional liquid is used but
is not an integral part of the instrument. The temperature of the system
is stabilized by a Hoeppler thermostat. A single filling of the instru-
ment with the liquid investigated enables a series of measurements in
various temperatures to be carried out continuously by a very simple
technique. The compactness of the instrument renders it air-tight and
limits its dimensions.

LL

BUKALA, M.

61

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✓ Phase-equilibrium state of the system liquid-vapor for real two-component mixtures. Terpenes. I. α -Pinene and β -pinene. M. Bukała, J. Majewski, and W. Rodziński (Warsaw Politech.), *Przemysł Chem.*, 9, 513-20 (1953) (English summary).—For 2 tray app. the curves of equil. and of compn., as well as the coeff. of activity, for α - and β -pinene mixts. under the pressure of 15, 30, and 55 mm. Hg were detd. The exptl. results were compared with the thermodynamic relations. The curve of equil. for nonperfect mixts. of a 2-component liquid was defined by taking the pressure of satd. vapors of pure components and the parameters (obtained experimentally for one freely chosen compn. of the mixt.) detg. the state of equil. II. α -Pinene, Δ^2 -carene 1-limonene, dipentene, and terpinolene. *Ibid.* 10, 197-201 (1954).—With the same app. the same curves of 2-component mixts. of these terpenes were detd. The investigated range of pressure given in part I does not affect the shape of the curve. The empirical equation of Prahl (*C.A.* 45, 9923f) for designing the equil. curve is fulfilled for the investigated terpene systems and is especially fit for the system α -pinene-terpinolene, the relative volatility of which changes in wide limits in the whole range of concns.

—Gen. A. Wozny

P.M.
MT

Bukata M.

Chem.

✓ Apparatus for the determination of vapor pressure by a static method. M. Bukata, J. Majewski, and W. Rodzinaki (Wroclaw Politech., Poland). *Przemysl Chem.* 9, 564-8 (1953) (English summary).—The vapor pressure is measured with the aid of a liquid manometer filled with any suitable liquid. The manometer forms a sep. unit and is connected by a system of glass tubes and cocks with the evapg. section of the app. Any no. of measurements can be made at various temps. with one filling of the substance examd. (6 ml.). The app. can be used for the detn. of vapor pressures up to 1200 mm. Hg. Vapor-pressure curves are given for CHCl₃ and CCl₄, and the data obtained are correlated with those given in *International Critical Tables*. At most temps. the agreement is within 2-3%. Gene A. Wozny

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✓
Pressure of saturated vapors of terpene hydrocarbons, constant components of Polish turpenines from common pine. M. Butala, J. Materski, and W. Rodziński. *Przemysł Chemiczny*, 10, 6-11 (1954) (English summary).—The results of the measurements of satd. vapors of terpene hydrocarbons, const. components of turpenines of Polish common pine, made by a static method in the temp. range 20-90°, gave linear functions on a Cox diagram. The extrapolated values of satd. vapor pressures of these hydrocarbons

at higher temp. show a tendency to converge for monocyclic and bicyclic hydrocarbons, whereas the contrary is true for β -myrcene, which has a chain structure. The equation, $P_t = [-A/(C + t)] + B$ represents the relation between vapor pressure and temp.; the consts. A, B, and C for the investigated terpenes are given. The max. deviation is ± 0.6 mm. Hg in relation to the exptl. values. — Gene A. Wozny

PM az

Bukala, M.

5470

547.508.5 - 511.133.0

Bukala M., Majewski J., Rodziński W. Phase Equilibrium State of the Liquid-Vapor System for Real Two-Component Mixtures.

POL. W

"Stan równowagi między fazowej układu ciecz-parą dla rzeczywistych mieszanin związków karmowych", Przemysł Chemiczny, No. 4, 1951, pp. 197-201, 5 figs, 8 tabs.

Two-layer apparatus was used to determine curves of equilibrium and composition of further two-component mixtures of terpenes: α -pinene, Δ^2 -carene, 1-limonene, dipentene and terpinolene (under pressure of 20,35,50 mm Hg). The range of pressures investigated does not influence the shape of the curve. How to apply empirical Prahl's equation for designing the curves of equilibrium is shown. The equation is indicated for the terpene systems investigated and proves specially suitable for the system α -pinene-terpinolene, the relative volatility α of which varies within wide limits (ca 30%) over the whole range of concentrations.

BUKALA, M.

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Calculation of the equilibrium curve of the system liquid-vapor for real two-component mixtures from the curve of the liquid-phase composition. M. Bukała, J. Majewski, and W. Rodziński. (Wrocław Politech., Poland). *Polymer Chem.*

10, 397-403 (1959) (English summary).—The compn. of the vapor phase in equil. above a 2 component mixt. of liquids was calcd. from the relation between the b. p. of the mixt. and its compn. under const. pressure. The method can be applied to azeotropic mixts., for which the compn. of azeotrope and its b. p. under given pressure are known. If the mixt. does not give an azeotrope, the compn. of vapor phase for one freely chosen concn. of the mixt. is necessary. Exactness of the results obtained depends on exactly detg. the pressure of said. vapor of the pure components. The deviations from the exptl. data for the system EtOAc-EtOH did not exceed 0.1%.

Gust A. Werner

Bukala, M.

✓ Pressure of saturated vapors of terpene hydrocarbons, constant components of Polish turpentine from common pine. M. Bukala, J. Majewski, and W. Rodzinski. *Przemysl Chem.* 10, 6-11 (1954) (English summary).—The results of the measurements of satd. vapors of terpene hydrocarbons, const. components of turpentine of Polish common pine, made by a static method in the temp. range 20-90°, gave linear functions on a Cox diagram. The extrapolated values of satd. vapor pressures of these hydrocarbons

at higher temp. show a tendency to converge for mono- and dicyclohydrocarbons, whereas the contrary is true for β -myrcene, which has a chain structure. The equation, $P_t = [-A/(C + t)] + B$ represents the relation between vapor pressure and temp.; the consts. A, B, and C for the investigated terpenes are given. The max. deviation is ± 0.8 mm. Hg in relation to the exptl. values. Gene A. Wozny

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Ds. Kottm m

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Chem.

Calculation of the equilibrium curve of the system liquid-vapor for real two-component mixtures from the curve of the liquid-phase composition! M. Bukała, J. Majewski, and W. Rodziński, (Wrocław Politech., Poland). *Przemyśl Chem.* 10, 397-403 (1954) (English summary).—The compn. of the vapor phase in equil. above a 2 component mixt. of liquids was calcd. from the relation between the b. p. of the mixt. and its compn. under const. pressure. The method can be applied to azeotropic mixts., for which the compn. of azeotrope and its b. p. under given pressure are known. If the mixt. does not give an azeotrope, the compn. of vapor phase for one freely chosen contn. of the mixt. is necessary. Exactness of the results obtained depends on exactly detg. the pressure of satd. vapor of the pure components. The deviations from the exptl. data for the system EtOAc-EtOH did not exceed 0.1%. Gene A. Wormy

AM

Bukala, M.

Chen

Apparatus for determining curves of composition of liquid (or vapor) mixtures. M. Bukala, J. Majewski, and W. Rodeński (Wrocław Politech., Poland). *Przemysł Chem.*, 11, 94-7(1983)(English summary).—The total pressure of satd. vapors over a liquid mixt. is detd. by a static method. A single filling of the app. permits a series of measurements of vapor pressure at different temps. to be made. With this app. it is possible to det. isobars and isotherms which can be used to draw the equil. curve. The optimum conditions of sepn. of mixts. can be detd. by a relatively small no. of measurements carried out in a short time.

Gene A. Wormy

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Bukata, M.

Nomograms for determining the phase-equilibrium curve liquid/vapor from the composition curve for two-component liquid mixtures. M. Bukata, J. Majewski, and W. Rodzinski (Wroclaw Politech., Poland). *Przemysl Chem.* 11, 189-90 (1955) (English summary).—Two nomographs are given to solve an equation deduced by the authors, which permits calcn. of the compn. of the vapor phase in equil. with the liquid phase of a 2-component real mixt. of liquids, on the basis of the liquid-phase compn. To explain the manner of applying the method an example of a mixt. H₂O (2-methyl-3-butyn-2-ol) at 763.5 mm. Hg was discussed.

Gent A. Wozny

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PM

POLAND/Chemical Technology - Cellulose and Its Derivatives.
Paper.

H.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 56086

Author : Bukala, M., Burchik, Viten.

Inst : M.

Title : Side Products in the Cellulose-Paper Industry. I.
Investigation of a Crude Turpentine Composition
(Sulfate Process). 2. Separation of Camphene.

Orig Pub : Przegl. papieru, 1957, 13, No 12, 360-364

Abstract : Turpentine is one of the side products in the sulfate processing of cellulose, and it contains 1.5 - 1.7% of SO₂. Its composition was established by means of fractional distillation, and was found to contain: cymene (87.1%), dl-camphene (1.36%), other terpenes (0.86%) and fractions not steam distillable (7%). The camphene was isolated in a crystalline form. The presence of alpha pinene, beta- and gamma-terpinene in the mixture

Card 1/2

FOLAND/Chemical Technology - Cellulose and Its Derivatives.
Paper.

H.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 56086

of terpenes is contemplated. The fractional distillation curves of turpentine and the physical chemical indices of the separated components are given. The possibility for using cymene for the production of terephthalic acid (and other products) is mentioned.

Card 2/2

44

POLAND/Chemical Technology. Chemical Products and Their
Applications. Chemical Wood Products. Hydrolysis
Industry.

II

Abs Jour: Ref Zhur-Khim., No 8, 1959, 29090.

Author : Bukala, M.

Inst :

Title : By-Products of the Cellulose and Paper Industry. Investigation
of the Composition of the Sulfite Liquor.

Orig Pub: Przeglad Papier, 14, No 9, 257-264 (1958) (in Polish
with English and Russian summaries)

Abstract: The author has investigated the qualitative and
quantitative composition of sulfide waste liquor by
methods used in the alcohol industry and by fractional
distillation in the column with an efficiency of 65
theoretical plates. The overhead cut, free from alde-

Card : 1/2

249

POL'IND/Chemical Technology. Chemical Products and Their Applications. Chemical Wood Products. "Hydrolysis Industry." H

Abs Jour: Ref Zhur-Khim, No 8, 1959, 29090.

hyde compounds, was found to contain methanol, small amounts of methyl acetate, ethyl acetate, and acetone in the form of azeotropic systems: methyl acetate-acetone, acetone-methanol, ethyl acetate-methanol. No esters of formic acid were found. Following separation of the ethanol, the residue was found to contain a mixture of organic acids in which acetic acid forms the predominant component. The oily residue consists of fusel oil. -- From a summary by the author.

Carl : 2/2

Country : POLAND
Category: Laboratory Equipment. Instrumentation

F

Abs Jour: RZhKhim., No 17, 1959, No. 60688

Author : Bukala, M.; Bureczyk, B.; Witek, S.

Inst : -

Title : Design of a Simple Device Equipped with the Time Mechanism for the Automatic Removal of Fractions Derived in the Separation of Multi-component Systems.

Orig Pub: Przem. Chem., 1958, 37, No 10, 671-673

Abstract: Described is an electro-mechanical device equipped with a clock mechanism for the automatic replacement of receptacles used in collecting fractions originating in various physical and chemical separation methods of multi-

Card : 1/2

Country : POLAND
Category: Laboratory Equipment. Instrumentation

F

Abs Jour: RZhKhim., No 17, 1959, No. 60688

component systems (fractional distillation,
chromatography, etc). The minimum duration of
a fraction is 30 minutes, the maximum is 24
hours. -- B. Kaplan.

Card : 2/2

F-8

COUNTRY	: Poland	H-24
CATEGORY	: Chemical Technology. Chemical Products and Their Applications--Chemical wood products. Hydrolysis*	
ABC. JOUR.	: RZhKhim., No. 21 1959, No. 76328	
AUTHOR	: Bukala, M., Burczyk, S., and Witek, S.	
INST.	: Not given	
TYPE	: Side Products of the Pulp and Paper Industry. Communication 3. Investigation of the Composition of the Waste Liquors of the Bardeck and Wioclaw**	
ORIG. PUB.	: Przeglad Papiern., 15, No 4, 97-101 (1959)	
ABSTRACT	: The analysis was made by the method of fractional distillation on nearly completely dewatered material. The presence of n-propyl and the absence of isopropyl alcohol and of camphor was noted. The processing of the waste liquors must be preceded by removal of sulfur compounds. For the preceding communication in this series see RZhKhim., 1959, No 3, 29090.	

From authors' summary

CARD: 1/1 *industry

**Sulfite Mills

269

BLASZKOWICZ, Jan.; ROCZNIAKOWA, Krystyna; WANTUCH, Stanisława; BUKALA,
Mieczysław.

Analytic methods in the camphor industry. I. A rapid method of
determining camphene. II. A rapid method of determining isoborneol.
Chem anal 4 no.4:719-727 '59. (E&AI 9:6)

1. Oddział Kamfory Zakładów Tworzyw Sztucznych "Pustków", Pustków
k. Debicy (for Blaszkowicz, Rocznakowa, Wantuch). 2. Katedra
Technologii Przemysłu Organicznego Politechniki, Wrocław.
(Camphor) (Camphene) (Isoborneol)

BUKALA, Mieczyslaw; BURCZYK, Bogdan; WITEK, Stanislaw

Obtainin g technically pure aliphatic alchohols from sulfite
fusel oils. I. Revining rawsulfite fusel oils. Chemia stosow
3 no.4:497-510 '59. (EPAI 9:6)

1. Katedra Technologii Przemyslu Politechniki Wrocławskiej
we Wrocławiu.

(Alcohols) (Fusel oil) (Sulfites)
(Aliphatic compounds)

BUKALA, Mieczyslaw; BURCZYK, Bogdan; WITEK, Stanislaw

Separation of higher aliphatic alcohols of technical purity from sulfite fusel oils. II. Separation of higher aliphatic alcohols by applying azeotropic agents giving no azeotropic systems with higher alcohols. Chemia stosow 4 no.1:129-146 '60. (EEAI 9:10)

1. Katedra Technologii Przemyslu Organicznego Politechniki
Wroclawskiej.

(Alcohols)	(Sulfites)	(Azeotropes)
(Aliphatic compounds)	(Fuel oil)	(Chloroform)
(Propyl alcohol)	(Butyl alcohol)	(Amyl alcohol)
(Pentanol)	(Isobutyl alcohol)	

BUKALA, Mieczyslaw; BURCZYK, Bogdan; WITEK, Stanislaw

Separation of higher aliphatic alcohols of technical purity from
sulfite fusel oils. III. Separation of higher aliphatic alcohols by
using azeotropic agents applied for the dehydration of alcohol.
Chemia stosow 4 no.2:283-304 '60. (EEAI 10:3)

1. Katedra Technologii Przemysl Organicznego Politechniki Wrocławskiej
(Alcohols) (Sulfites) (Fusel oil)
(Azeotropes) (Aliphatic compounds)

BUKALA, M.

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Verhandlungen der Deutschen Physikalischen Gesellschaft, Bd. 11, 1942 (Continued)

6

BUKALA, Mieczyslaw; BURCZYK, Bogdan; WITEK, Stanislaw

Obtaining of aliphatic alcohols, technically pure, from sulphite fusel oils. I. Refining of raw sulphite fusel oils. Chemia stosow 3 no.4: 497-510 '59.

1. Katedra Technologii Przemyslu Organicznego, Politechnika, Wroclaw.

BURCZYK, Bogdan; BUKALA, Mieczyslaw

Transformations of terpene hydrocarbons present in fir wood while obtaining sulphite cellulose. Chemia stosow 5 no.3:439-441 '61.

1. Katedra Technologii Przemyslu Organicznego, Politechnika, Wrocław.

BUKALA, Mieczyslaw; BURCZYK, Rogdan; WITEK, Stanislaw

Sulfite turpentine. I. Chemia stosow 6 no.l:ll5-132 '62.

1. Katedra Technologii Przemyslu Organicznego, Politechnika, Wroclaw.

WITEK, Stanislaw; BUKALA, Mieczyslaw

Studies on the composition of Polish-made sulfate turpentines.
Chemia stosow 6 no.2:295-320 '62.

1. Katedra Technologii Przemyslu Organicznego, Politechnika,
Wroclaw.

WITEK, Stanislaw; BUKALA, Mieczyslaw

Studies on the composition of Polish sulfate turpentines. Pt. 2.
Chemia stosow 6 no.3:511-525 '62.

1. Katedra Technologii Przemyslu Organicznego, Politechnika, Wroclaw.

BURCZYK, Bogdan; BUKALA, Mieczyslaw

Transformation of terpene hydrocarbons present in *Picea excelsa*
wood during the production of sulfite cellulose. Pt. 1.
Chemia stosow 7 no. 2:245-270 '63.

1. Katedra Technologii Przemyslu Organicznego, Politechnika,
Wroclaw.

BURCZYK, Bogdan; BUKALA, Mieczyslaw

Transformations of terpene hydrocarbons present in spruce
wood during the preparation of sulfite cellulose, Pt. 2,
Chemia stosow 7 no.4:661-678 '63.

1. Katedra Technologii Przemyslu Organicznego, Politechnika,
Wroclaw.

WITEK, Stanislaw, dr inz.; BUKALA, Mieczyslaw, prof. dr inz.

Composition of Polish-made sulfate turpentine. Przegl papier
20 no. 1: 12-17 Ja '64.

1. Katedra Technologii Przemyslu Organicznego, Politechnika,
Wroclaw.

L 36898-66 EWP(j) RM

ACC 'NR: AP6027097 (N)

SOURCE CODE: PO/0099/66/040/001/0021/0028

26

B

AUTHOR: Burczyk, Bogdan; Bukala, Mieczyslaw

ORG: Department of Organic Technology, Polytechnic Institute, Wroclaw (Katedra Technologii Przemyslu Organicznego Politechniki)

TITLE: Transformation of (plus or minus)-alpha-terpineol, terpinolene, and (+)-limonene under the action of aqueous SO₂ sub 2 solutions

SOURCE: Roczniki chemii - annales societatis chimicae polonorum, v. 40, no. 1, 1966, 21-28

TOPIC TAGS: sulfur compound, dehydration, isomerization, chemical reaction

ABSTRACT: The products obtained from (+)-alpha-terpineol, terpinolene and (+)-limonene subjected to the action of aqueous SO₂ solutions have been examined. The mechanism of the respective transformations is proposed. The main reactions involved are a typical acidic dehydration and isomerization in some cases, and racemization in another. The authors thank Professor Trzebiatowski for making possible the infrared spectrum. Orig. art. has: 2 figures and 3 tables. [JPRS: 35, 397]

SUB CODE: 07 / SUBM DATE: 15Jul64 / ORIG REF: 002 / SOV REF: 001 / OTH REF: 020

1

LS

Card 1/1

1. BUKALANOV, A.
2. USSR (600)
4. Citrus Fruits - Tajikistan
7. Cultivation of citrus fruits in the Tajik S.S.R., Sad i og. no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

L 27198-66 EWT(m)/EWA(d)/EWP(t)/ETI IJP(c) JH/JD

ACC NR: AP6015253

(A)

SOURCE CODE: UR/0125/66/000/005/0074/0075

30
B

AUTHOR: Rabkin, D. M.; Bukalo, I. A.; Korzhova, V. Ya.; Dem'yanchuk, A. S.

ORG: none

TITLE: Heterogeneity of aluminum-magnesium alloy welds

SOURCE: Avtomicheskaya svarka, no. 5, 1966, 74-75

TOPIC TAGS: aluminum alloy, magnesium containing alloy, alloy weld, weld property/
AMg3 alloy, AMg6 alloy

ABSTRACT: The nature of the dark areas frequently appearing in x-ray pictures alongside welds, and their effect on the properties of AMg3 and AMg6 aluminum-magnesium alloy welds, have been investigated. Alloy plates 3 or 6 mm thick were TIG-welded with steel backing. In these welds the dark areas were about 0.5 mm wide. The specimens with and without dark areas had roughly the same tensile strength, 32.2 kg/mm² and 31.6 kg/mm². The fracture in both specimens was also similar. Spectral analysis revealed a sharp increase in magnesium content in the location of dark areas: 7.2% instead of 2.8—3.8% for AMg3 alloy and 11% instead of 6% for AMg6 alloy. The microhardness of α-solid solution in the dark area was 77—87 kg/mm² as compared to 60—66 kg/mm² in the weld or in the annealed base metal. Thus, the dark areas are formed as a result of the enrichment of alloy with magnesium. They do not reduce the strength of the weld. Orig. art. has: 4 figures. [AZ]

SUB CODE: 11, 13/ SUBM DATE: none/ ATD PRESS: 4258
Card 1/1 CC UDC: 621.791.019

DOBROVOL'SKIY, Viktor Konstantinovich, prof.; EGOLINSKIY, Ya.A.,
prof.; LEBEDEVA, V.S., dots.; BUKALOV, M.M., vrach;
LEKHTMAN, Ya.B., red.; LEEDEVA, Z.V., tekhn. red.

[Medical and pedagogical control of physical education in
boarding schools] Vrashebno-pedagogicheskii kontrol' za fi-
zicheskim vospitaniem v shkolakh-internatakh; posobie dlia
vrachei. Leningrad, Medgiz, 1963. 183 p. (MIRA 16:7)
(PHYSICAL EDUCATION FOR CHILDREN)

BUKALOV, P.M., inzh.

Press used for riveting spring blocks of electric locomotive
gear transmissions. Elek. i tepl. tigr. 2 no.12:28-29 D 158.

(Power presses) (Electric locomotives) (Gearing)
(MIRA 12:1)

BUKALOV, S.

27-5-6/25

AUTHOR:

Bukalov, S.

TITLE:

Laboratories for Control and Measuring Instruments (Kontrol'no - izmeritel'nyye laboratori)

PERIODICAL:

Professional'no - Tekhnicheskoye Obrazovaniye, May 1957, #5(144),
pp 8 and 9 (USSR)

ABSTRACT:

The students of Labor Reserve Schools manufacture metal-cutting lathes, wood-working machines and other articles ordered by their base enterprises. To avoid rejects it is necessary periodically to examine the measuring instruments. For this purpose some of the administrations of the Labor Reserves have established regional laboratories for the examination of measuring instruments. Fourteen such laboratories are now in existence, and they play an ever increasing role. The author calls the attention of the local administrations and schools to the existence of these laboratories where their gages and instruments should be systematically examined.

The article contains one photo.

Card 1/2

27-5-6/25

TITLE: Laboratories for Control and Measuring Instruments (Kontrol'no-
izmeritel'nyye laboratori)

INSTITUTION: None

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress

Card 2/2

BUKALOV, S.

What was shown by unified tests. Prof-tekh. obr. 22 no.1:4-5
Ja '65. (MIRA 18:4)

AUTHOR BUKALOVA, G.V. 20-1-51/64
TITLE On a New Species of Foraminifers in the Jurassic Deposits in the North-Western Caucasus.
(О новом роде фораминифера из албеских отложений северо-западного Кавказа - Russian).
PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 1, pp 185-188 (U.S.S.R.)

ABSTRACT During the investigations of the lower chalk layers at the Adezga at the Kabardin Pass there were discovered original forms which have no similarity to the forms already known. Because of their particular characteristics, these forms were given the name of *Globivalvunella* gen.nov./abbreviation in the Russian text/, belonging to the family of the Trochamminidae. On the other hand, the species of the *Globivalvunella grossheimi* sp.nov./abbreviation in the Russian text/ comes from the Jurassic deposits of the Northern Caucasus. The newly discovered species bears great resemblance to the *Globivalvulina* Schubert, 1920, particularly as far as the arrangement of the chambers is concerned. According to Reichel (1945), the *Globivalvulina* and the *Globivalvunella* are isomorphic agglutinated shells.
(1 drawing, reproductions, 1 chart).
References: Miklukho-Maklai, VSEGEI, 1954, Reutlinger , Tr.Geol.Instit.AN. SSSR, 126 geol. ser. Nr 47 (1950), Cushman, Foraminifera, Their Classification and Economic Use, 2nd ed., 1933, 3rd ed., 1940, 4 th ed., 1948, Galloway, A Manual of Foraminifera, F.Kamp Memorial Series, publ.Nr 1, Indiana 1933,

Card 1/2

On a New Species of Foraminifers in the Jurassic Deposits in 20-1-51/64
the North-Western Caucasus.

M.Reichel,Ecl.geol.Helv.,38, Nt 1, 1945, G.Sigal, Foraminifera, A.J.Piveteau
Traite de paleontologie, 1952.

ASSOCIATION Not Given.

PRESENTED BY

SUBMITTED

AVAILABLE Library of Congress

Card 2/2

BUKALOV, Valeriy Mikhaylovich; NARUSBAYEV, Aleksandr Abdugaparovich;
GERASIMOV, V.N., kand. tekhn. nauk, retsenzent; FEDIN, P.G.,
inzh., retsenzent; YEGOROV, S.A., nauchn. red.; PENOVKA, Ye.M.,
red.

[Design of atomic submarines; from materials in the foreign
press] Proektirovaniye atomnykh podvodnykh lodok; po materia-
lam inostrannoj pechati. Leningrad, Sudostroenie, 1964.
287 p. (MIRA 17:7)

BUKALOVA, G.V.

Rotaliids and epistominids from Aptian and Albian deposits on
the left bank of the Laba River (northwestern Caucasus). Trudy
VMIGNI no.16:209-223 '60. (MIRA 13:6)
(Laba Valley—Foraminifera, Fossil)

BUKALOVA, G.Y.

Buliminids and ellipsoidinids from Albian deposits of the Balaya-Kuban interfluve (Northern Ciscaucasia). Trudy VNIGRI no.16:
225-233 '60. (MIRA 13:6)
(Caucasus, Northern--Foraminifera, Fossil)

Bukalova, L. V.

TELETYPE BOOK EXPERTISE

Sov/PA/375

Academy's name USSR. Institut metalurgii imeni A.I. Pavlova

Ural'stali' material' material' konstruktsii po ustroistvi metallov 22-25
avustroj 1978 g. (Fizika i Material' Material' na konferecii po Fizike
material', dekabry 22-25, 1978) Moscow, 1980, 157 p., 3,500 copies printed.Nauk. Ed.: I.A. Oding, Corresponding Member, Academy of Sciences USSR; Ed. of
Publishing House: N.M. Goryainov, Tech. Ed.: I.M. Borovikov.PURPOSE: This collection of articles is intended for mechanical engineers,
mechanics, and scientific research workers.CONTENTS: The collection contains discussions relating to fatigue failure of
metals, fatigue in finished parts, and methods for testing endurance. Included
are a critical review of existing theories on metal fatigue, some data on
metallic regularity patterns, and features of steel failure caused by fatigue.
Papers dealing with applying a new criterion to the notch sensitivity of metals
and high-strength steels are included. The mechanics of failure due to
corrosion fatigue of metals is discussed along with pertinent experimental
data. Also presented are the results of testing the fatigue strength of such
several parts as larger-size plates and various parts of machines used in the
petroleum industry. Problems involved in testing metals used in the
economical. No personalities are mentioned. Each article is accompanied by
bibliographies, most of which are Soviet.Borovikov, Ye. M. (referenced), I.V. Nechaevskiy, I.M. Rabinovich,
and Yu. P. Rabinovich, Some Data on Physical Regularity Patterns
of Steel Fatigue FailureRAECE, S.U.S. References Under Repeated Loading and Resistance
to Brittle Failure

24

Ottogi, J. K. and G. T. Quachich. Criteria of Notch Sensitivity
of the Metal Under Cyclic Loading

47

Markovets, M. E. Notch Sensitivity of High-Strength Steels

62

Belovarov, B. M. Notch Sensitivity of High-Strength Steels

72

Vedeneeva, S. O. and V. D. Slobodchikov. Mechanical or Corrosion
Fatigue Failure of Metals

80

PROBLEMS OF ENDURANCE-TESTING METHODS

105

Kondratenko, I. A., Markovets, and A. I. Tsvetkov. Investigating
the Cyclic Strength of Metals by Plotting a Fatigue Diagram
Ottogi, J. K. and G. T. Quachich. Determining the Dependence
of the Cyclic Coefficient of the Notch Sensitivity of Metals
on the True Stress Concentration Factor

106

ENDURANCE TESTING OF PLATES

115

Bartels, R. M., and I. V. Rabinovich. Fatigue Strength of Large Plates

129

Kashkin, R. M., and E. A. Bagayev. Corrosion-Fatigue Strength of Roller Chains

139

Baranovskiy, I. N. Connection Between the Strength of Materials and of
that of the Pure Under Effect of Static, Cyclic and Impact Loads

148

Zilberman, Yu. Yu. and A. P. Vinogradov. Short-Time Tests for
Fatigue of Metallic Structures with Bearing Alloy

155

AVAILABLE: Library of Congress (14604377)

Card 4/4

TS/PA/375
12-9-80

BAVRINA, M. I.; BUKALOVA, V.V. (g.L'vov)

Interchangeable over-all shop accounting at railroad yards.
Zhel.dor.transp. 40 no.11:79-81 N '58. (MIRA 11:12)

1. Starshiy inzhener-ekonomist finansovogo otdela L'vovskoy
dorogi (for Bavrina). 2. Starshiy inzhener sluzhby dvizheniya
L'vovskoy dorogi (for Bukalova).

(Railroads--Yards)

(Railroads--Accounts, bookkeeping, etc.)

Bukalovich, M. P.

AID P - 2434

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 33/33

Authors : Kazavchinskiy, Ya. Z., and Martynovskiy, V. S.

Title : On errors in G. I. Fuks' review of the book
"Tekhnicheskaya Termodinamika" ("Engineering
Thermodynamics") by M. P. Bukalovich and I.I. Novikov

Periodical : Elek sta 5, 63-64, My 1955

Abstract : The article refers to the book review published in the
No 2, 1954 issued of this journal and lists errors made
by the reviewer in his mathematical analysis.

Institution: None

Submitted : No date

BUKALSKA, ZOFIA

BEK, Eugenia; BUKALSKA, Zofia

Pulmonary tuberculosis with co-existing bronchial cancer.
Gruzlica 24 no.12:1213-1217 Dec 56.

1. Z Zakladu Ftyzjatrii I.D.I.S.K.L. i Szpitala Specjalisty-
cznego im. Dr. A. Sokolowskiego w Lodzi. Kierownik: doc. dr.
med. M. Zierski. Adres: Lodz, ul. Kosynierow Gdynskich 20.
(TUBERCULOSIS, PULMONARY, complications,
cancer of bronchi (Pol))
(BRONCHI, neoplasms,
in pulm. tuber. (Pol))

ZIERSKI, Maria; BUKALSKA, Zofia

Value of piperazine admide in the treatment of pulmonary tuberculosis,
Gruzlica 29 no.8:709-719 Ag '61.

1. Z Kliniki Ftizjatrii Studium Doskonalenia Lekarzy AM w Szpitalu
im. dr A. Sokolowskiego w Lodzi Kierownik: prof. dr med. M. Zierski.

(TUBERCULOSIS PULMONARY ther)
(PIPERAZINES ther)

ZIERSKI, Marian; BUKALSKA, Zofia

Morphanzinamide (Piazolina) in the treatment of pulmonary tuberculosis. Gruzlica' 32 no.3:205-215 Mr '64.

1. Z Katedry i Kliniki Ftizjatrii Studium Doskonalenia Lekarzy Akademii Medycznej w Szpitalu im. dr. A. Sokołowskiego w Łodzi (Kierownik: prof. dr. med. M. Ziernski).

BUKALSKA, Zofia

The causes and sequelae of incorrect chemotherapy with classical drugs of patients with pulmonary tuberculosis after hospital treatment. Gruzlica 32 no.11.1001-1007 N '64

1. Z Katedry i Kliniki Ftizjatrii Studium Doskonalenia Lekarzy Akademii Medycznej w Szpitalu im. A. Sokolowskiego w Lodz (Kierownik: prof. dr. med. M. Zierski).

S/189/60/000/005/001/006
B110/217

AUTHORS: Topchiyeva, K. V., Zen'kovich, I. A., Bukanayeva, F. M.

TITLE: Effect exerted by the addition of rare earth oxides upon the catalytic properties of some oxidizing catalysts in hydrocarbon reactions

Vol
15

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya 2, khimiya, no. 5, 1960, 3-5

TEXT: Rare earths (Sm_2O_3 ; Nd_2O_3) are good dehydrogenating and cyclizing catalysts for paraffins and cycloparaffins, the activity of which is greatly increased by mixing with Al_2O_3 . The authors aimed at obtaining a catalyst with bifunctional action (rare earth component for dehydrogenation) by adding rare earth oxides to aluminum silicate. The most active aluminum silicate (30% Al_2O_3 ; 70% SiO_2) with admixtures of 5% of the total weight of La_2O_3 ; Nd_2O_3 ; Sm_2O_3 ; Pr_2O_3 ; Y_2O_3 ; Yb_2O_3 , was tested. $\text{Al}(\text{OH})_3$, silica gel, and rare earth hydroxide were mixed and activated in the N_2 current at 550°C to pro-

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S/189/60/000/005/001/006

B110/B217

Effect exerted by ...

duce the catalysts. Each experiment was followed by reactivation in the air current at 500-550°C. Cumene cracking was studied at 450°C and a volume rate of 1 ml/ml·hr. When 5% oxide were added, the cracking ratio, mole of the separated gas : mole of passed through cumene decreased from 45% to 35%. n-octane was also investigated at 500°C and a volume rate of 0.65 ml/ml hr. The ratio, gas weight : weight of the passed through n-octane decreased by ≈ 2 mole%, with gas- and catalyzate composition remaining unchanged after analysis by means of BTM(VTI) apparatus. 5% Nd_2O_3 admixture at 320°C, H_2 pressure = 24 atm., volume rate, 1 ml/ml·hr resulted at unchanged composition of the catalyzate in a decrease of cracking by ≈ 7 mole%. This reduction of activity is due to a contamination of the acid aluminum silicate centers by the strongly basic hydroxides of the rare earths and partial destruction of the aluminum silicate structure. Also the catalysts: 95% Al_2O_3 : 5% Pr_2O_3 ; 95% Al_2O_3 : 5% Yb_2O_3 ; 95% Al_2O_3 : 5% Sm_2O_3 ; 80% Al_2O_3 : 20% La_2O_3 ; 80% Al_2O_3 : 20% Pr_2O_3 , with n-octane at 500-545°C and a volume rate of 0.64-0.16 ml/ml·hr, resulted in no increase of activity. The increase of cracking by ≈ 6-10% obtained with 80% Al_2O_3 : 20% Pr_2O_3 at a volume rate of

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S/189/60/003/005/001/006
B110/B217

Effect exerted by ...

0.16 ml/ml·hr is due to the hydrogenation properties of Pr_2O_3 . The results the authors obtained with the following catalysts: 85% Al_2O_3 : 15% Me_2O_3 ($\text{Me} = \text{Nd}, \text{Sm}$) were in complete disagreement with those of V. I. Komarewsky (Ref. 1: Industr. and Engng. chem., 49, No. 2, 264-265, 1957). The experiment made by this researcher with heptane and 85% Al_2O_3 with 15% Nd_2O_3 was repeated, the catalyst being produced by his method of mixing and coprecipitation. The calculated amount of highly acid 0.39 M $\text{Nd}(\text{NO}_3)_3$ was added to 0.725 M sodium aluminate solution. The catalyst was activated at 550°C in the N_2 current. No increase of activity as compared to pure Al_2O_3 was established. Possibly, Komarewsky prepared his mixing catalysts in a different way, or he compared their activity with that of the rare earth oxide and thought that Al_2O_3 was inactive. The higher activity of his catalysts may also be due to Al_2O_3 which, according to its way of preparation, may also have dehydrogenating properties (Table). There are 1 table and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The reference to English-language publications reads as follows: Ref. 2: Ciapetta F. G., Hunter J.

Card 3/5

S/189/60/000/005/001/006
B110/B217

Effect exerted by ...

B. Industr. and Engng. chem., 45, 147-55, 1953.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova,
Kafedra fizicheskoy khimii (Moscow State University imeni M. V.
Lomonosov Department of Physical Chemistry)

SUBMITTED: July 14, 1959

Legend to the Table: The conversion of n-heptane at 525°C on the mixing catalyst, 85% Al_2O_3 : 15% Nd_2O_3 ; 1) catalyst: volume rate ml/ml·hr; 2) thermal cracking 4.85 ml/hr; 3) coprecipitation method; 4) mixing method; 5) data by Komarewsky; 6) bulk factor of the catalyst, ml; 7) yield, wt%; 8) of gas; 9) of catalyst; 10) losses; 11) gas composition, vol%; 12) paraffins; 13) and 14) olefins; 15) aromatic components; 16) catalyzate composition, wt%.

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S/189/60/000/005/001/006

B110/B217

Effect exerted by ...

Превращение н-гептана при 525° на смешанном катализаторе состава
85% Al₂O₃; 15% Nd₂O₃

1 Катализатор: объемная скорость, мл/мл·час	Насыпной объем катализатора, мл	Выход, вес. %		Состав газа, %объема, %	Состав катализата, вес. %		
		газа	катализата		H ₂	парафина	олефина
2 Термический крекинг 4,58 мл/час	—	15,0	85,0	0	1,00	85,8	13,2
Al ₂ O ₃ 0,15	30	22,6	72,3	5,1	18,1	71,5	10,4
3 (Метод соосаждения) 0,15 85% Al ₂ O ₃ ; 15% Nd ₂ O ₃	30	17,2	70,2	12,6	15,8	73,2	11,0
4 (Метод смещения) 0,15 85% Al ₂ O ₃ ; 15% Nd ₂ O ₃	30	21,9	62,8	12,3	18,5	68,9	12,6
5 (Данные Комаревского) 0,15 85% Al ₂ O ₃ ; 15% Nd ₂ O ₃	30	—	71,8	—	64,8	22,9	12,3
						10,3	21

Card 5/5

TOPCHIYEVA, K.V.; ZEN'KOVICH, I.A.; BUKANAYEVA, F.M.

Catalytic activity of rare earth oxides deposited on silica in reactions involving the decomposition of alcohol. Vest. Mosk. un. Ser. 2: Khim. 16 no.1:34-37 Ja-F '61. (MIRA 14:4)

1. Kafedra fizicheskoy khimii Moskovskogo universiteta.
(Rare earth oxides) (Dehydration (Chemistry))

L 10702-63

ACCESSION NR: AP3002024

EWP(j)/EPF(c)/EWT(m)/BDS--ASD--Pc-L./Pr-L.

PM/WW

5/0195/63/004/003/0492/0494

AUTHOR: Bukanayeva, F. M.; Boreskov, G. K.; Dzis'ko, V. A.TITLE: Investigation of the chromium oxide catalyst for high polymerization of ethyleneSOURCE: Kinetika i kataliz, v. 4, no. 3, 1963, 492-494TOPIC TAGS: chromium oxide, CrO₃ catalyst, polyethylene, catalyst carrier, activated CrO₃

ABSTRACT: The conditions for activating CrO₃ for production of polyethylene were investigated: CrO₃ concentration, nature of carrier, reactivity with solvents. Pure CrO₃ is completely dissociated at 400 degrees, while with 5% CrO₃ on silica gel, Al or Mg silicate at the same temperature 90% is still in the hexavalent state and at 800 degrees, 30% of the Cr is still hexavalent. Increasing CrO₃ from 5 to 20% on the carrier decreases its activity, apparently because of decrease in dispersibility. CrO₃ on a carrier is most rapidly reduced in methycyclohexane, moderately reduced by cyclohexane and n-heptane and least in benzene; pure CrO₃ does not react with heptane due to formation of layer Cr₂O₃. When activated CrO₃ catalyst is treated with solvent,

Card 1/2

L 10702-63

ACCESSION NR: AF3002024

2

polymerization induction period is prolonged (to provide for desorption of solvent-reaction products from catalyst surface), but catalyst activity is actually increased. EPR spectra of activated and of activated cyclohexane-treated catalyst show same signal intensity, presuming same amount of reduction to Cr sup +5. Hence solvent does not participate in formation of active component of the catalyst; catalyst activation is determined by surface combination of the Cr with the carrier. "EPR spectra were taken at the Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)." Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: Institut kataliza SO AN SSSR (Catalyst Institute, Siberian Department of the Academy of Sciences SSSR)

SUBMITTED: 30Jan63

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 005

OTHER: 001

ja / [signature]

Card 2/2

BORESKOV, G.K.; BUKANAYEVA, F.M.; DZIS'KO, V.A.; KAZANSKIY, V.B.; PECHERSKAYA,
Yu.I.

Electron paramagnetic spectra of deposited chromium oxide catalysts
used for ethylene polymerization, and the nature of their activity.
Kin. i kat. 5 no.3:434-440 My-Je '64.

(MIRA 17:11)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR i Institut khimi-
cheskoy fiziki AN SSSR.

BUKANKOV, Ye.I., inzh.

Types of tapered heels and heel lifts for women's shoes and
methods for their fastening. Kozh. obuv. prom. 5 no.7:31-35
Jl '63. (MIRA 16:8)
(Shoe manufacture)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307320019-6

BUKANKOV, Ye.I.

Determining toe allowances in lasts. Kozh. obuv. prom. 5
no.11:21-23 N '63. (MIRA 17:1)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307320019-6"

BUKANKOV, Ye.I., inzh.; MATVEYEV, B.D., kand.tekhn.nauk; RYNDICH, A.A.,
kand.tekhn.nauk; KHOKHLOV, I.M.

Abrasion testing of spike heellifts for women's shoes. Kozh.-obuv.
prom. 6 no.3:18-21 Mr '64. (MIRA 17:4)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307320019-6

BUKANKOV, Ye. I., inzh.; DEYCH, M.M.

Use of plastic heels without plugs. Kozh.-obuv.prom. 6 no.10:34-35
O '64. (MIRA 18:1)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307320019-6"

BUKANKOV, Ye.I.

Standardization of the dimensions of spike heels and top lifts.
Kozh.-obuv.prom. 7 no.325-29 Mr '65.

(MIRA 18:10)

BUKANKOV, Ye.I.; KOBRINSKIY, L.S.; KRASNOV, B.Ya.; BRUK, M.B.

High heels for women's shoes made from polypropylene. Kozh.-
obuv. prom. 7 no.5:28-32 My '65. (MLRA 18:8)

BUKANKOV, Ye.I.; KOBRINSKIY, L.S.

Manufacture of spike heels from compatible macromolecular compounds. Kozh.-obuv. prom. 7 no.7:25-26 J1 '65. (MIRA 18:8)

BUKANKOV, Ye.I.; MARKARYAN, G.A.; YUSUFOV, I.Yu.

Attachment to the breaking test machine for the testing of
plastic spike heels. Kozh.-obuv. prom. 7 no.12:14-16 D '65.
(MIRA 19:2)

BUKANOV, Aleksey

My friend's order. Voen. znan. 41 no.10:10-11 0 '65.

(MIRA 18:10)

BUKANOV, A.

World champion. Kryl. rod. 16 no.11:27-28 N '65.

(MIRA 18:12)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307320019-6

BUKANOV, A.

Courage, Kryl, rod. 16 no.9:3-4 S '65.

(MIRA 18:12)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307320019-6"

KOSHELEV, F.F.; KORABLEV, Yu.G.; BUKANOV, A.M.; CHASOVSHCHIKOV, G.L.

Reinforcement of latex films with alkali lignin. Kauch. i rez.
23 no.2:9-11 F '64. (MIRA 17:3)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M.V.Lomahosova.

ACCESSION NR: AP4017161

S/0138/64/000/002/0009/0011

AUTHORS: Koshelev, F. F.; Korablev, Yu. G.; Bukanov, A. M.; Chasovshchikov, G. L.

TITLE: The strengthening of rubber films by alkaline lignin

SOURCE: Kauchuk i rezina, no. 2, 1964, 9-11

TOPIC TAGS: synthetic rubber, emulsion polymerization, zinc oxide, thiuram, sodium oleate, Leukanol, lignin, physicomechanical property, vulcanization, calcium chloride

ABSTRACT: Commercial synthetic rubbers, and experimental butadiene-containing rubbers prepared at the polymerization laboratory of the Institut organicheskoy Khimii AN SSSR (Institute of Organic Chemistry AN SSSR) were investigated. The lignin was obtained from waste sulfite liquor of wood pulp processing. Most of the mixtures consisted of 100 parts rubber (by weight), 5 parts of a 33% dispersion of zinc oxide, and 3 parts of a similar dispersion of thiuram. The solid ingredients were dispersed in a 5% aqueous solution of Leukanol in a ball mill. A 15% lignin solution in 20% ammonia was prepared, and up to 10% of it was added to the rubber dispersion. No vulcanizing agents were used for films prepared from SKD-1 and L-7 commercial rubbers, since the undercoat of calcium chloride (applied to the glass

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ACCESSION NR: AP4017161

molds where the films were cast) acts as a vulcanizing agent for carboxylic type rubbers, as does lignin. The films were subjected to syneresis in warm water for 30 minutes, dried in a thermostat at 70C, and vulcanized at 140-150C for various periods of time. It was found that in all instances the tensile strength and modulus at 300% elongation increased as the result of incorporation of lignin. The extraction of lignin from the compounded rubbers by 2% alkali was observed to decrease with the duration of vulcanization, suggesting a chemical bond. Orig. art. has: 3 charts.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Industry)

SUBMITTED: 00 DATE ACQ: 23Mar64 ENCL: 00

SUB CODE: CH NO REF Sov: 003 OTHER: 004

Card 2/2

ASHIKHMIN, A.K.; BUKANOV, M.A.; DLUGACH, B.A.; DOBROSEL'SKIY, K.M., inzhener;
KOSTRYKIN, A.A.; LEBEDEV, T.P., NIKITIN, V.D.; PARREROV, Ya.D.;
NIKITINA, V.D., professor, redaktor; GUL'EV, Ya.Y., redaktor; VERINA,
G.P., tekhnicheskiy redaktor

[Handbook for hump yard workers] Rukovodstvo rabotnikam sortirovch-
noi gori. Moskva, Gos. transp. zhel-dor. izd-vo, 1950. 222p
[Microfilm]

(MLRA 10:1)

1. Russia (1923- U.S.S.R.) Ministerstvo putey soobshcheniya
(Railroads--Hump yards)

BERLYAND, A.U., inzhener; BUKANOV, M.A., redaktor; KHITROV, P.A.,
tekhnicheskiy redaktor

[Railroad switchman's manual] Rukovodstvo strolochniku. Izd.
2-e. Moskva, Gos.transp. zhel-dor. izd-vo, 1955. 224 p.

(MLRA 9:2)

1. Russia (1923- U.S.S.R.) Ministerstvo putey soobshcheniya.
(Railroads--Switches)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307320019-6

MIL'DARF, M.D.; BUKANOV, M.A., redaktor; KHITROV, P.A., tekhnicheskiy
redaktor.

[Manual for chief and senior conductors] Rukovodstvo glavnому
i starshemu konduktoram. Izd. 5-oe, perer. Moskva, Gos.transp.
zhel-dor.izd-vo 1955. 342 p. (MLRA 9:1)
(Railroad conductors)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307320019-6"

BUKANOV, M.A.; PRIGOROVSKIY, V.F., redaktor; BOBROVA, Ye.N., tekhnicheskiy
redaktor

[Switchman's manual] Pamiatka strelochniku. Izd. 8-oe. Moskva, Gos.
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